

Amendments To The Specification:

Please add the following new headings after the Title:

CROSS-REFERENCE TO RELATED APPLICATIONS

Not Applicable

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH

Not Applicable

BACKGROUND OF THE INVENTION

Please delete the first sentence beginning at page 1, line 1, "The present invention is related to a method for processing data."

Please delete on page 2, line 5, which begins with "STATE OF THE ART" and substitute "BRIEF SUMMARY OF THE INVENTION".

Please delete on page 4, line 14, "OBJECTIVE"

Please delete on page 4, lines 20 - 21, "SOLUTION" and "The objective is resolved by claims 1 and/or 9 and/or 20."

Please add the following heading to page 16, line 18, remove "EXAMPLES" and insert "BRIEF DESCRIPTION OF THE DRAWINGS"

Fig. 1 shows an executing instance;

Fig. 2 shows a binary addition;

Fig 3 shows a net which has plural input channels and plural output channels;

Fig. 4 shows another example of a net;

Fig. 5 shows another example of a net;

Fig. 6 shows the composition of two nets M and M' ;

Fig. 7 shows the composition of the nets of Figure 6, in which only transitions with synchronization channels are combined into a transition;

Fig. 8 shows a machine representation, wherein a or b is an internal synchronization channel;

Fig. 9 shows that concatenation of nets can also be performed by a composition;

Fig. 10 shows the natural number 2 is represented by a machine which outputs the binary system string 010 on channel a ;

Fig. 11 shows the results of an equation $c = b + 2 \bmod 8$;

Fig. 12 shows $b = 3$ and $c = 5$;

Fig. 13 shows the complete operation;

Fig. 14 shows $a = 2$, represented with infinite leading zeroes;

Fig. 15 shows the first step of simplifying $a = 2a + c$;

Fig. 16 shows another step;

Fig. 17 shows a verification step;

Fig. 18 shows matrices of natural numbers encoded as nets and summed up through composition;

Fig. 19 shows a representation of a composition;

Fig. 20 shows the channel structure of a Turing machine;

Fig. 21 shows a tape with fields for memorizing the symbols 0, 1 and τ ;

Fig. 22 shows an initialization $Init_{01}$ of the tape with the symbol string $\tau 01\tau$;

Fig. 23 shows a finite control P_1 ;

Fig. 24 shows knowledge encapsulated by a machine;

Fig. 25 shows symbol strings;

Fig. 26(a) shows a machine with $c \in L$;

Fig. 26(b) shows a machine with $c \notin L$;

Fig. 27(a) shows the encoded execution of an operation;

Fig 27(b) shows how uncoded operands a and b are processed

Fig. 28(a) represents a combiner of channels;

Fig. 28(b) represents an inversion of Fig. 28(a) inversion;

Fig. 29 shows a possible structure of a register database;

Fig. 30 is a representation of how a hardware encodes data of the application with a stream encoding;

Fig. 31 shows a possible schema, and

Fig. 32 shows one example for a sequential, reversible machine.

DETAILED DESCRIPTION OF THE INVENTION

While this invention may be embodied in many different forms, there are described in detail herein a specific preferred embodiment of the invention. This description is an exemplification of the principles of the invention and is not intended to limit the invention to the particular embodiment illustrated.”

Please add the following new paragraph after the last text on page 25:

The above disclosure is intended to be illustrative and not exhaustive. This description will suggest many variations and alternatives to one of ordinary skill in this art. All these alternatives and variations are intended to be included within the scope of the claims where the term "comprising" means "including, but not limited to". Those familiar with the art may recognize other equivalents to the specific embodiments described herein which equivalents are also intended to be encompassed by the claims.

Further, the particular features presented in the dependent claims can be combined with each other in other manners within the scope of the invention such that the invention should be recognized as also specifically directed to other embodiments having any other possible combination of the features of the dependent claims. For instance, for purposes of claim publication, any dependent claim which follows should be taken as alternatively written in a multiple dependent form from all prior claims which possess all antecedents referenced in such dependent claim if such multiple dependent format is an accepted format within the jurisdiction (e.g. each claim depending directly from claim 1 should be alternatively taken as depending from

all previous claims). In jurisdictions where multiple dependent claim formats are restricted, the following dependent claims should each be also taken as alternatively written in each singly dependent claim format which creates a dependency from a prior antecedent-possessing claim other than the specific claim listed in such dependent claim below.

This completes the description of the preferred and alternate embodiments of the invention. Those skilled in the art may recognize other equivalents to the specific embodiment described herein which equivalents are intended to be encompassed by the claims attached hereto.

Please delete the list of references cited on pages 26 and 27.